6 Yi 2
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F 6

on the Cure of Fevers.

We should proceed now in the order of our syllabus to treat of the cure of fevers accompanied with morbid action, but there is an intermediate grade of fever called the Typhoid which partakes of the character of the Synochus or ~~Synocha~~ Synocha, and of the typhus fever, and in which the medicines for both are alternately or occasionally indicated. We use it most frequently in the puerperile fever & in the Scarlatina and now & then in the jail fever — the bilious fever & even in the pleurisy. In short there are none of the primary forms of fever that do not sometimes assume it. Sometimes a fever comes on ~~attacks~~ with

the symptoms of this intermediate grade of fever. When this is the case, the disease creeps on gradually. The patient complains of indisposition two or three ~~weeks~~ days & sometimes weeks before he is confined to his bed. He has during this time head ache, restless nights - disturbed dreams - a dry skin - weak appetite. He is soon fatigued with labor or exercise. No chills, or a very feble one introduces the attack of the fever which confines the patient to his bed. The pulse is somewhat frequent, ~~The pulse is soft &~~ a little jerking, but in point of force upon a par with a natural or healthy pulse. The skin is hot & dry - the head bewildered - and the tongue partially or alternately moist and dry. It sometimes continues for 20 or 30 days

without an intermission and with ob-
-scure remissions with but little change
in its symptoms except ascending, or
descending in their force, but so little as
scarcely to be perceptible. ~~But it~~ In this
state it has received from Dr Butler the
name of the slow nervous fever. But
it more frequently descends into that
state of fever which is called by Dr Cullen mitior
by us typhus, in
which the pulse is weak & fre-
-quent, with a barely perceptable febrile
jerk in it - the tongue and teeth
are furred & of a dark
mouth are dry - the skin is dry & cool,
color. ~~In the milder cases the skin~~ or moist & then partially hot & moist.
The bowels are costive, or loose - the skin is pale
patient is stupid - or comatose, and

v This delirium has been called "delirium
mite" by Dr Cullen. Sometimes this delirium
apumes the symptoms of the chronic state
of madness, in which state it is called by Dr
Cullen "Typhomania". - There is a Dubiety
on symptoms of Apoplexy The lower
limbs are elevated to prevent the body de-
scending to the foot of the bed - Glandular swellings,
Abscesses and Gangrene generally form the last
Scene of this disease.

Often deaf. He keeps 4 His jaw is generally fallen.
delusions. His hands are affected with
tremors — and convulsive motions,
and when his tongue trembles
in his Attempt to protrude it. There is a
palsy or slowness of apprehension.
The close of the disease which often con-
-tinues for several weeks, the Stools and
Urine pass involuntarily, and a muttering
delirium takes place. V The fever with these
symptoms has been called by Dr Butler the low
nervous fever. There is a foundation for these
distinct grades of fever. You will find them
both very accurately described by Dr Butler in
his history of the infantile remitting fever. Dr
Wytham has described them likewise, but
he has confounded the two grades or states of
fever, under the general name of the low nervous
fever. — There are several Vulgar errors
upon the subject of these states of fever which

~~These~~

I shall endeavour to consult before we proceed to treat of their cure.

1 They are called nervous fevers from a belief that they were seated primarily in the nerves. They ~~affect the Nerves but little nor~~ are primary diseases of the blood vessels, and like all other fevers affect the nerves in a secondary manner. But they affect the nerves less than the brain and the ~~muscles~~ muscles, and were we to designate them from the parts they affect symptomatically it would be more proper to call them cephalic, or ~~tendinous~~ muscular or tendinous states of fever.

2 It has been supposed that these two states of fever are the effects of neglected, or of improper depletion. But this is not true. They are as much the products of nature as any of the other forms of fever, and they resist with the

the same Obstinacy all our efforts to shorten
than course that Obstinate fever do of the Shor-
-test Duration. It is sometimes Epidemic,
and it is the endemic of many Countries.

3 It has been supposed that the typhoid &
Typhus, or the slow and Con. States of fever
are derived only from humanmias- or Ideo-
-matatic exhalations, but this is an error
we sometimes observe both to succeed the plus-
-city & the influenza, and we often observe
them to follow the typhus state
of the bilious fever. ~~They would th~~ Even
the yellow fever now & then assumes the
forms of these two States of fever. I have seen
a typhoid yellow fever in this city, & Dr
Pinkard says the same form of yellow
fever sometimes occurs in the West Indies.

7

The bilious fever of this city which now of late years has run its course in 3. 5. 7 & 9 days; about between the years 1760 and 1770 often ran on to the 20 & 30th days before it came to a crisis. This chronic form of bilious fever has disappeared in our city since the yellow fever has disappeared, but chiefly in sporadic cases.

4 It has been supposed that the typhoid & typhus states of fever are always of a chronic nature. This is contrary to correct observation. We often saw them both terminate in life or death in 7. 9. 11. or 14 days in the military hospitals of the United States during the revolutionary war.

5 Lastly it has been supposed that the typhoid & typhus states of fever, are to be used only

by stimulating remedies. But experience teaches us they sometimes yield only to Bleeding and other depleting remedies even in their most protracted forms. Of this I shall mention some remarkable instances when I come to treat of the cure of these states of fever. –

The cure of what I have called the typhoid form of Dr Butler's low remittent fever comes first under our notice.

In its forming state (the signs of which were formerly mentioned) an emetic often cures it in a few hours. Of this I had many satisfactory proofs while I attended the military hospitals of the United States during the revolutionary war. I constantly carried a number of doses of Tartar emetic in my pocket with printed directions how to take them,

~~divided Dose~~, and wherever I met a soldier whether in Camps, on the road, or ~~the~~ in a Hospital, who complained of languor — head ach or any other premonitory sign of this disease, I gave him a dose of that medicine, & I was generally made happy by seeing him fit for duty the next day.

After the disease is formed what remedies should be given? Here we meet with another popular error upon the subject of ~~one of the forms of~~ what is called the nervous fever. — It is common to begin the cure of the typhoid, or slow nervous fever by exhibiting stimulanting remedies. But I object to this use, and that for the following reason. I said formerly that there were two kinds of wrong action in the blood vessels in fevers,

the one in the Course of the blood, and the
other in muscular fibres of the blood vessels
themselves. Now the former state of wrong
action takes place in ~~most~~ all fevers of a
highly morbid action, nor does it cease
completely in the typhoid state of the fever.
In this state of the ~~blo~~ circulation of the
blood, Stimulants encrease its wrong direc-
tion, and thus create Obstructions, and
Disorganization in all the Viscera. Were
we sure Nature would not do this mischief
without the aid of Medicine, it would be
best to obey the ~~command~~ Advice given in our
Therapeutics, ~~and~~ that is "to do nothing"
but this cannot be done with safety.
The Remedies for this state of fever are

1 Bloodletting. This should be used with

great caution, and in very small quantities. In ~~habits~~ habits debilitated by previous or low living labor it should not be used, but in persons ~~who have~~ of contrary habits it is not only safe, but highly proper. It generally saves the brain from suffering in the course of the disease. Few of the Soldiers of the American army could bear it, but it was used with great advantage in the officers of the army who from their intercourse with their men in the hospitals were sometimes infected with this fever. It came on this class of patients with hypochra & hypochondria symptoms. Let here quit a striking proof of the impossibility of dividing diseases by their remote causes. There will be no order in medicine, nor safety to the human race till we renounce nosology with all its

labyrinth of evils. Let us say of it as the ancient Romans used to say of their rival city of Carthage. "Delenda - delenda - est no=
=xologica."

2 Are cases where bleeding is forbidden vomits should be prescribed in this fever. They have a wonderful effect in untying the typhoid knot (if I may be allowed the expression) in the arterial System. If it becomes the scarlatina partakes in its character so much of the typhoid state of fever that emetics are generally so useful in it. To be effectual they should be given every two or three days.

3 Purges. Dr Hamilton has published a book upon the Use of purges & recommends them in the Typhus fever. By ~~typhus~~ he means ~~typhus in the by~~ the in the low state of nervous

fever. I object to them, but if he means - the typhoid ~~fever~~ or slow state of fever. I have no doubt of their safety and efficacy. They carry off bile, and prevent visceral Congestions. To be useful they should be given ~~once~~ every day, or two or three times a week.

℞ Nitre, or the Antimonial powder is both safe & useful in this state of fever when it is ~~not accompanied with~~ a form of the bilious fever, in which case it is generally offensive to the stomach.

℞ Blisters as gentle vaicants have been used in this state of fever. They keep up a revulsive determination of the fluids, and thus save the brain and abdominal Viscera from Obstruction.

℞ Ablution with Cold Water, and perhaps its affusion. The latter will be most safe when the typhoid ~~fever~~ is descending to

V & It is possible Dr Jackson's remedy of
Gestation might be employed with ad=
=vantage in this fever. but I can say
nothing in its favor from my own ex=
=perience.

the typhus action.

of a salivation. This remedy has succeeded in this state of fever when all others have been employed to no purpose. It ~~acts~~ is difficult to determin the mercury to the salivary glands, and I am sorry to add I have much oftener failed, than succeeded in exciting a salivation by it. V

These Remedies should be continued till the typhoid action of the pulse is nearly subdued - I say nearly subdued, for there are cases in which there is more danger from the fever terminating in death from an exhausted state of the system, than from using stimulants a day or two before the typhoid action in the arterial system is completely worne down, or descending to the typhus state with a small degree of a wrong direction in the circulation of the blood. I shall illustrate my meaning by a simile. Suppose a mill race to be suddenly obstructed

by a large Collection of timber, Earth, and Stones. Should the gate which conveys Water to this Dam be suddenly opened, and its force be insufficient to Open its Obstructions, the Consequences would be the Destruction of the Sides of the Water Course, and perhaps of all the adjacent grounds; But suppose all such parts of the Obstructing Matters as are in sight, and capable of being removed, be only a large Log, or a few Stones remain in the Water Course, but that they are so placed as to obstruct the Course of the Water in a sufficient Stream to turn the Mill. In this Case, by opening the Gate which Communicates with the Dam, the force of the Water, acting upon the Obstructing Matters, would probably remove them without injuring the Sides of the Mill race, or the adjacent grounds. The insuption of the Water in this Case should be gradual,

Nor should its sudden action be employed,
until a more slow impression had been tried
to no purpose. In like manner, gentle
stimulants should be given in the declining
state of the typhoid fever, and the pulse should be
narrowly watched. If it become fuller & slower
after the use of stimulants, continue them, but
if it do not, desist from this use agreeably to
the rule formerly delivered in our therapeu-
-tics.

The cure of this state of fever may be
summed up in a few words, that is, agreably
to the sound general indication in our thera-
-peutics by exciting action in the stomach
bowels, skin, throat & mouth, and perhaps
muscles by gestation, or passive exercise &
thereby abstracting morbid action
from the blood vessels, and afterwards to im-
-part to them a healthy & vigorous action
by medicines which act directly upon them,

or in other words to produce a natural, instead of an artificial action in the blood vessels, for they are capable of but one action at a time.

We come next in order to mention the remedies for the low ~~typhus~~ state of fever, or for what Dr Cullen has called the Typhus mitior.

As the prostrate form of ~~malignant~~ or Typhus gravior of Dr Cullen in which no reaction attends, and the gan-
- grenous ~~state~~ form of fever require the same remedies as the typhus mitior, I shall include them under the same heads. These two forms of fever are produced by different degrees of the same force acting upon the nerves & blood vessels. The more this force acts upon the nerves, the ~~les~~ gangrenous are the symptoms, and vice versa. In the simply, prostrate or ~~malignant~~ form of fever, the nervous ~~& muscular~~ fibres of the body are nearly in a paralytic state,

the skin is cool - the pulse is feeble, often na-
-tural as to frequency, & sometimes scarcely
perceptible - the system is insensible to im-
-pressions of all kinds - pain exquisitely sensible, or is acute, or insensible and Absent, instead of it a morbid pleasure is felt which patients express, by saying "they feel too well." Sometimes the muscles are exempted from the stroke of the remote cause of the fever, in which case patients rise from their beds, dress themselves and attempt to resume their ordinary pursuits in life. When the remote cause of the fever affects the blood vessels as well as the nerves, the disease is marked by hemorrhages, petechiæ, bubos and Carbuncles. Alibert has very properly called these forms of fever Adynamic. They are occasioned by a kind of palsy in the nerves & blood vessels. — I have

For a number of facts opposed to putrefac-
-tion in ~~the blood in~~ malignant fevers I
refer you to my history of the phenomena of fever.
To these facts I shall mention one more.
Dr Hamilton in his lectures upon Anatomy
in the University of Glasgow used to tell his
pupil that while he attended Dr Wm Hunters
dissecting theatre in London he uniformly observed those
dead bodies that had petechiæ on them w:
you know are produced by what is called a
putrid fever, putrefied sooner than bodies that
died of fevers without these supposed marks
of putrefaction.
Persian

prefered the terms prostate & gangrenous
in order to obviate the error of putrefaction
which was formerly said to take place in
these fevers. They are both the effects of
stimulus, and as little the result of a
putrefactive process in the fluids, as a mor-
tification of a limb from a contusion. V.
They are sometimes preceded by great morbid
action and inflammation, but the stimulus
which induces them is often so powerful,
that it does not permit those states of the
system to take place. This I said formerly
was generally the case with the yellow
fever in the West Indies. The blood is generally
dissolved in the prostate & gangrenous
states of fever. ~~This has been ascribed to a pu-~~
~~trid ferment acting upon it~~. I ascribed it to
formerly

to the blood vessels acting with so much force as to destroy its capacity of life. It is sometimes dissolved in the lowest grade of the typhus fever from an opposite cause, that is from the blood vessels acting too feebly upon the blood to preserve its capacity of life, or its animalized state. Thus we see the extremes of fever meet in a point not only in the nerves, muscles & blood vessels, but in the blood itself. Excessive and deficient stimulus produce the same effects, of course the Remedies to remove them should be the same. These are Stimulants.

They have been divided into external and internal.

The internal stimulants may be Divided

into medicines and Aliments.

The medicines are, alk fermented & distilled liquors, volatile alkali, empyreumatic & spiritual oils, opium, ether, bark, ~~bitters of all kinds~~, and mercury, administered not only thro the medium of the stomach, but of the rectum & bowels, and also of the lower bowels by way of Glysters, also oxygen & oxygen gas pure atmospherical air, and lastly the inspiration of the passions & the understanding.

The stimulating Aliments include the vegetable and animal matters that are used in diet.

The external stimulants are fomentations and cataplasms applied to the lower extremities, & to the external region of the bowels and stomach. — the warm bath, — affusion of cold water — Blisters — cata=plasms

to the limbs – Caustics – boiling Water – friction, Sound, and light. ~~Applications to the Nose.~~

I of ~~internal~~ Stimulants. and first of ~~Spirituous~~ Stimulating medicines. These I have said are

1 Fermented and distilled liquors in which are included Wine, malt liquors and ardent Spirits.

Wine is a most agreeable ~~& useful~~ medicine in these States of fever. It possess an acid, a portion of Spirit – ~~a portion of~~ unfermented matter called Must; ~~of Course it is a cordial~~ possess and a quantity of water, – of Course it is cordial, nourishing, and diluting qualities. The quantity to be given should Depend upon the nature of the Wine. The white Wines such as Sherry, Madeira, Sicilly & Lisbon contain most cordial & nutritious Qualities, for which reason a less quantity of them should be taken

The wines of medicine bear
than of the red wines such as port & claret. The
testimony of a quart to two quarts of the former
The former and from one to three bottles of the latter
having been given in the course of four & twenty
hours with safety & advantage. I have prescri-
-bed them both early in those quantities in
the typhus fevers of the military hospitals
of the States. They may be given alone,
or with the whey of wine whey
or diluted with water at the pleasure
of the patient. It is remarkable that pa-
-tients in these states of fever whom four or
five glasses of wine would have intoxicated
in health, will drink two or three bottles in
a day without discovering the
least sign of intoxication from them.
It is of consequence to know this fact, for
I once lost a student of medicine in a
typhus fever because his parents would
not permit him to drink as much wine
as his disease required, but he

should pass into Intensity in a state of in-
-toxication

2 Of the Malt liquors Porter should be preferred.
Its bitterness disposes the Stomach to retain
it, and as it is kept longer before it is sold
than any other malt liquor, it is not so
liable to be decomposed in the Stomach.
From one to three bottles of it may be
taken in a day according to the state of the
System.

3 Distilled Spirits should be given to persons
who have been in the habit of using them
when in health, for their systems will
not feel the more feeble stimulus of Wine
and Porter. There are cases in which they
are necessary to the persons who have
been habitually temperate. They are most
useful, where a sudden effect is required.
They are indicated likewise after Wine
and porter have lost their ~~this~~ cease to be

A person took Spirit & Wine of each a
Quart in one night with an equally
favourable issue to the disease. So much
was the sense of taste affected in this
fever that the Spirit was as insipid
upon the tongue as Water. In cases
where deglutition was impracticable,
the Spirit and Wine were poured by
Compulsion down the throat into the stomach. It was
remarked that Brandy & spirit thirst
more than any other drink. It
acted by its stimulus - diffusing morbid ex-
-citement from the fauces, to every part
of the body.

felt by the System. There is no danger of thus producing a love of ardent Spirits, for they are seldom necessary longer than two or three days, and this time is too short for them to become agreeable to the taste, or necessary to the System. From a grain to two grains have often been taken in twenty four hours in these states of fever. A Lady in Connecticut took a grain in 8 hours with in the Spotted fever in the year 1809, ~~a grain & a half of Opium~~ other cordial medicines & was cured by them. Another

4 The volatile Alkali has great Virtues in these states of fever. From five to ten grains of it may be given every two hours. It may be conveyed into the Stomach in the form of a bolus, or of pills mixed with a little flour, or Tincture of Roses, or

it may be given dissolved in water, and
so blunted by being mixed with Gum Arabic
that it shall not give any uneasiness
to the mouth or throat
in its passage into the stomach.

An attempt has been made to revive
the fixed Alkalies in the gangrenous state
of fever, in order to destroy a Septic acid
which is supposed to be evolved in it. This
the use of these Salts, and in this state of
fever is not new, nor yet the theory
which has led to it. Sylvius de la Boe
we are told prescribed the same medicines
also absorbent earths in order to destroy
a morbid acid which he supposed to be
the cause of a malignant & gangrenous
fever which prevailed in Leyden in
the year 1669. Two thirds of all who took
these medicines died, & many
of them probably from the use this
unsuitableness to

the disease.

Of the Empiscumatic Oils I can speak only of the Oil of Amber from my own experience. In all those pectoral affections of the muscles whether in tremors, or in cramps, it is extremely useful. From five to ten drops of it may be given every two hours.

Of the aromatic Oils, those which are obtained from Cloves, Cinnamon, Aniseed & Mint are often employed in these states of fever. Their principal use is to make other medicines lie easily upon the stomach. The Oil or Spirit of Peppermint is most frequently used for this purpose.

Of the Stimuli that are taken from the Animal kingdom Musk & Castor are the only two that now retain their place in medicine. Musk has been employed most generally in those fevers when they are attended

expensive

V thus object to its being offensive to the senses of smell & taste. to its being expensive and often adulterated. I do not deny its being occasionally given with success, But I have observed it is in the last stage of disease for disease. or symptoms of disease in which all the common stimulants of the shops have been previously given without success. In this case it acts, 1st by its novelty and 2dly by the sublimity of its stimulus, being exactly proportioned to the tender remains of excitability of the System. Its efficacy therefore depends not upon its strength but its weakness as a stimulus. It is this why ∓ V upon the glands in increasing & opening the secretions — upon the

∓ that feeble remedies prescribed by quacks & old women often perform cures of diseases which have long resisted the most powerful stimulating remedies.

with symptoms of disease in the muscular
system; but as ~~though~~ is ~~an~~ ~~expensive drug~~
~~medicine~~, offensive in its ~~taste~~ smell &
taste to most patients, & very apt to be very expensive
adulterated, and as its effects ~~are~~ when
pure and taken in the largest doses are
by no means generally useful, I think
it may be laid aside, and the oil of amber
~~an~~ or the Tincture or watery solution of
Asafoetida be substituted for it. V While I

Opium as a stimulant is what the Ro-
-man poet calls his hero, "ipse agmen" a
host of itself. ~~I think~~ In classing Opium among
the stimulating medicines I am aware that I
dissent from Dr Cullen and some other physi-
-cians who have considered it as a sedative,
but its effects upon the pulse in increasing
its fulness & lessening its frequency - upon the diaphoretic in increasing & lessening
their action - V ~~upon the~~ relieving pain, ^
~~on~~ nerves ~~&~~ in ~~giving them tone~~ - upon

V which act upon but one, or seldom upon
more than two or three of them.

the muscles in removing their tremors,
upon the brain in preventing, or induc-
-ing sleep ~~upon~~ according to its dose – upon the
mind in ~~inducing~~ exhilarating it – upon the
stomach in removing the flatulency, ~~&~~ which
& upon ~~the~~ the bowels in checking the diarrhaa
that arise from debility, ~~& prove it to be~~ and upon the
skin producing ~~a~~ sweats, or exciting a gene-
-ral itching, all prove it to be a Stimulant.
In thus acting upon all the different systems
of the body it differs from ~~all~~ all other Stimulants,
for example – Bark ~~acts~~ chiefly
upon the blood vessels, – mercury upon the lympha-
-tics and glands, – volatile alkali and other
~~Ether~~ oil of amber upon the muscles
upon the nerves, – fermented liquors
upon the brain and mind, – bitters upon the
stomach, and Astringents upon the bowels,
Whereas Opium possesses a universal empire
over all the systems of the body. It differs

in its extensive effects
moreover from several of the narcotic plants
with which it has been classed such as hemlock
henbane & night shade which & stops all
of which act chiefly upon the nerves and
brain in inducing sleep, and easing pain,
and seldom produce any material change
in their ordinary doses upon any of the
other systems. In short - while all the
stimulants that have been mentioned may
be compared to a candle or torch, which
acts in a narrow sphere & only upon the
sense of sight, Opium may be compared
to the sun which diffuses its influence
over all the kingdoms & elements
of nature.

Against its preeminence as a stimulant
it has been said, distilled spirits have act

V of Gunpowder which would propel an 18
pound ball thro a ~~wall~~ nine inch wall, ~~and~~
if its force were divided, and spent upon
18 grape Shot would ~~scarcely pass~~ make
but a feeble impression upon it.

more powerfully upon the Arterial system, and that this is evident from greater frequency of the pulse by a Dose of distilled Spirits, than by an equal Dose of Opium. This may be true, but it no more proves the former to exceed the latter in their stimulating powers, than the greater efficacy of Bark in curing an Intermittent than Opium proves it to be a more powerful Stimulant than Opium. Both the Spirits and the Bark concentrate nearly their whole Stimulus upon the blood Vessels, while Opium divides and diffuses its Stimulus among all the Systems of the body. — Thus the same quantity

An accident which happened in the State of Delaware State of Maryland, an account of which I first heard about the year 1770 first suggested to me the idea of giving Opium in

the low state of fever. A gentleman ~~took~~ by mistake a table spoonful of Laudanum instead of a table spoonful of a Cordial Julep ~~by mistake~~, in the lowest state of typhus fever. He immediately fell into a profound sleep, ~~and~~ in which he lay 48 hours. He awoke free of tremors - and pain and with the perfect exercise of his senses. After which he recovered in the rapid manner. Soon after this fact was communicated to me I began to give opium in the typhus fever. In conjunction with Dr Sam Duffield of this city, I introduced it into general use in the military hospitals of the United States during the revolutionary war, and with the happiest effects in the low ~~fever of the~~ hospital fever. ~~His~~ Since the American

War it has been adopted in Great Britain, but in very limited doses. Dr Campbell of Kendal in England commends it in high terms in his pamphlet upon that subject published about the year 1787. The following rules should be attended to in the exhibition of Opium in the low states of fever.

1 Begin by giving it in small doses & when your suspect great accumulated excitability, Ten drops of Laudanum will often compose the System, and indues sleep when a greater quantity will prevent it by elevating the System beyond the sleeping point. Patients who complain of the want of sleep after taking a Laudanum the first time often tell us they took too small a dose of it, whereas their want of sleep is more frequently occasioned by their taking it in too large a dose. There are two ways

V Cases in which from faintness, or any other cause sudden debility is induced upon the System. The excitability is thus accumulated, and small doses of Laudanum produce great effects. Dr Stadman relates a Case in the Medical Sparg of Edin^r in which a common dose of Laudanum induced death in a man who had been suddenly debilitated by taking an emetic.

of inducing Sleep by means of Opium. 1 By giving exactly as much of it as will raise the System to the Sleeping point. 2 By giving it in so large a quantity as to depress the System to the Sleeping point by its excess of Stimulus. The latter is always unsafe, as it determinates the blood too powerful to the brain where it sometimes disposes to effusion and death. By ~~according to this~~ giving Laudanum in the former way, I have often induced easy sleep by giving from five to ten drops of it, when I am sure from 50 to 200 would not have induced it, or if they had, it would have been at the expense of the evils I have mentioned. This rule applies with equal force to those V
2 The dose of Opium should be increased with the progress of debility. I have often prescribed from two to ten grains of it in the course of a day in the

✓ Service when it induces sleep, and this sleep does most good when it continues 6 or 8 hours, so as completely to lock up excitability, and thus prevent its waste in useless sensations & motions. Opium ~~can only in giving it to induce protracted~~ & deep sleep that ~~then be no previous~~ tendency to ~~congestion or effusion in~~ the brain ~~be on~~ I have said sleep is a disease, that is, a healthy apoplexy. I have taken notice of the salutary effects of the disease of thirst in counteracting morbid excitement in the fauces, & thus defending more vital parts of the body from it in the same manner that a Derivertial Cathartic produces its salutary effects. Now why may =

the typhus fever, and from two to six grains
of it at bedtime. In the Scarlet fever in Connecticut in
1869, a grain and an half of it were given every
hour for eight hours with great advantage.
There is no limiting the dose of this medicine,
when given at first in moderate quantities.
Dr Bouquet of Paris took an hundred grains
of it in a day for a colic with safety, and
relief to his complaint. If it were given when it is
without fruits, I believe it is because it is
taken in too small doses. It does most
3 It should be given during the day in small
Doses, as well as in large doses at night. In
Cases of extreme weakness, the pulse should
be watched during sleep, & if it flag, the
patient should be waked, and a fresh dose
of Cardamom should be given. From
the want neglect of this practice
many patients die in their sleep in the

=sleep be made to perform the same salutary
purpose by abstracting morbid actions from
every part of the body and concentrating them
in the brain? In this way as I shall say
hereafter, nature often brings on the crisis of
a low typhous fever, and in this way, we observe
the generally carries off the disease of drunken-
=ness. The sleep in both these
cases is from 12 to 24, or 30 hours. Recollect
what was said in our Therapeutics that we
are too tender of the brain in translating
disease from one part of the body to another.
Its retaining its healthy organization
under perversions of blood as epilepsy repeated
for 20, or 30 years, — and of drunkenness during a
long life, show that that the brain
is a much hardier viscera that has
generally been supposed. Take care only in
giving Opium to induce deep or protracted sleep,
that there be no previous tendency to congestion or
effusion of water in the brain. It will =

by phus fever.
4 ~~It Opium~~ should be laid aside ~~The preparations of Opium~~ for a day or two when the system burnes insensible to its action, and other stimulants used in its stead.
5 When the opium ceases to act through the medium of the stomach in common does, or when it produces pain in the head, or sickness at stomach give it by way of Clyster. Remember the fact of mustard losing its effect upon one nostril, and exciting sneezing when applied to the other.
A Double ~~the Quantity~~ Dose of Laudanum will be necessary to act upon the system when it injected into the bowels. ~~6 4~~

6 4
Lastly. In proportion as the patient recovers, and the excitability of the system is restored, the dose of laudanum should be lessned in the same ratio that it was encreased with the decay, or waste of excitability.

generally be safe where there has been
little or no previous delirium, or headach,
and where the blood vessels have been
~~very easily pulsate~~ sufficiently emptied of this
blood by previous bleeding, or the abstraction
of aliment by a long duration of the
fever. return to p. 35.

Ether may be used after Opium loses its effect. It is a ~~fast~~ prompt & powerful stimulant, but so volatile that its action soon passes out of the system. From 30 to 60 drops of it may be taken every hour in any of the common drinks of a patient.

Bark has many advantages in these states of fever. It is both a diffusible & durable stimulant. Begin with the Infusion Unless you have been called late in the disease, and afterwards give ~~it~~ Bark, ~~in the form of~~ an ounce Thatcher's tincture ~~of Cinchona~~ An ounce & an half, Laudanum fifty drops - mint water an ounce & common water six ounces, mixed together in the form of a Julep. The dose should be a table spoonful of it every hour and encreased, and lapsed with the encrease or decay of excitability. The

V The Spanish physicians have lately told us that in the malignant state of the yellow fever at Cadiz & that at Gibraltar the Bark was taken daily, & that a less quantity was of no service.

quantity of Bark ~~should~~ may be encreased until the patient takes six ounces of it in a day; provided the encrease of debility makes it necessary. ~~If this Bark~~ While I thus advise large doses of Bark, I must add, that are cases ~~of typhus low states of fever~~ in which full doses of it are more effectual in the cure of the low states of fever. Dr Asclinie a french physician tells us that he cured the typhus grade of the plague in Egypt by giving two tables spoonsful of an infusion of Bark and Coffee of each a large tea spoonful infused in half a pint of boiling water every two or three hours. Even Bitters sometimes produce greater effects than Bark in the low and dangerous states of fever. A decoction of the Willow bark once checked the progress of a fatal ma-
lignant

fever at the Illinois country after the largest doses of Bark had been given in it to no purpose. The Issues of these opposite modes of practice may be accounted for in the following manner. In the low or prostrate, or gangrenous fever the system is in one of the three following states. 1 a good deal excited, with but little excitability, 2nd feebly excited, and feebly excitable. 3rd in both these states of the system six ounces of Bark taken in the course of four and twenty hours, would produce powerful & salutary effects by overcoming morbid excitement by rousing dormant excitability wherever it existed, and with the feeble remains of existing excitab? and converting it into healthy excitement instantly. but 3. in those cases in which there was weak excitement &

V latter stages ~~its is of~~ or when excitab[y]
has been expended by protracted remote
or exciting causes, powerful stimuli
will be not only safe, but indispensably
necessary. Weak Stimuli in these cases
do harm.

great excitability. (which I said formerly often existed in feeble diseases) the weak infusion of Bark and Coffee, and ~~the Yellow~~ common Bitters, and even the Willow bark I can easily conceive would do the same service as six ounces of Bark in another state of the System taken in the course of a day. These facts and the reasonings on them, furnish us with fresh arguments for beginning with small doses of stimulants in all weak diseases, especially when they are of a recent nature, for their Mercury is entitled to a place among the stimulants that are employed in the low states of fever. I was led to give it in them, by observing its good effects in the Cynanche maligna, and afterwards by observing a salivation accidentally excited by

the application of a little mercurial
ointment to the side in a typhus fever,
instantly to remove the fever. I have
often employed it since and with great
advantage. Even where it does not affect
the mouth, it does service as a general
stimulant. When I first gave this no-
=ble medicine in fevers such as I am de-
=scribing, I did not know that it had
been in general use in other Countries.
In the same year and nearly at the
same time of the year it was given
by Dr Wade in the West Indies, Dr Chis-
=holm in the West Indies and myself in
this city without any Concert, and
without even the knowledge of each
other's names. In the Course of my

V Sir Robert Wilson speaks in high terms of the efficacy of this remedy in the plague which affected the British Soldiers in Egypt.

reading I have since discovered that it was used as a Sialagogue in fevers in Italy in the year 1739, and in other parts of Europe afterwards for the same purpose. It was because it was given empirically, that it fell into disuse, for when given before the System is reduced, it is either useless or hurtful. In the yellow fever of 1798 which in some instances forbad bleeding, a Salivation was always useful, and it is remarkable it was most easily excited in such cases. V. I have never heard of ~~a~~ an instance of its producing mortification in the ~~j~~ mouth or throat when it has been given in a reduced ~~or~~ that is a prostrate or typhus state of the System. The smell of mercurial Ointment is sometimes offensive

The Stimulating Remedies which are proper to act upon the whole system thro' the medium of the nose are Ardent Spirits - Ether - Ammonia, in- -hald, or thrust up the nose by means of a feather.

The remedies which act most powerfully upon the System through the medium of the bowels are Bark - Laudanum - Wine Ardent Spirits - turpentine & large quan- -tities of water to purge as to act by the stimulus of distention.

to sick people, in which cases it should not be used. The ~~fo~~ application of it by means of friction, is not only inoffensive, but useful in these States of fever.

Pure Air - I say pure air - for cold air is highly improper in these states of fever, as I have frequently had occasion to ob= =serve in the military hospitals of the United States. Many of our soldiers perished from the coldness of the air in our hospitals, & that more when they were removed in winter from one hospital to another to prevent their falling into the hands of the British Army. The effects of pure air are wonderful in the ~~good~~ prostrate typhus states of fever. Dr Lind mentions many in= =stances of the yellow fever being converted into a mild intermittent by removing

~~the~~ patients from land to the pure air of
the ocean in the West Indies. Dr Trotter-phy-
sician to the British navy says the yellow
fever was subdued in a ship under the
command of Admiral Thompson by
her leaving a sickly Island, & going on
a Cruise for two weeks. Dr Dalzelle
tells us that ~~of~~ 400 men who sailed indisposed with low fevers, from Cayenne for Texas on board the Elephant ship of war, but one died. They were cured by the Sea Air. The remarks that this air checked this debilitating sweats, but that they were succeeded by a constant desire to make water.

In many cases ~~as~~ the same salutary
effects have often followed the removal

of patients ill with low fevers from a ~~town~~ City to a Country, and from a low to high & mountainous situ-
-ations.

In every case where patients are removed for the benefit of pure air, they should be conveyed in a boat or in an Arm ~~Chair~~ or when practicable, or in a very easy Sedan Chair, Carriage. Long & violent Motion if said formerly is always followed with an encrease of fever, and sometimes with sudden death, as we ~~of~~ now be ~~ha~~ often witness in the yellow fever hos-
-pital upon the Shore of the Schuylkill in the year 1798.